~~TOP SECRET~~

[redacted]

HEADQUARTERS
AIR RESEARCH AND DEVELOPMENT COMMAND
UNITED STATES AIR FORCE
Andrews Air Force Base
Washington 25, D. C.

ADDRESS REPLY TO
COMMANDER ARDC, ATTN:
RDZGW

22 July 1959

SUBJECT: Satellite Programs

TO: GENERAL SCHRIEVER

Attached is information on Satellite Programs which you requested from AFBMD. The information was prepared by Major Weinberg, WDZW.

[redacted]
Lt Colonel, USAF
Asst Chief, AFBMD Office
Asst DC/WS, Missiles &
Military Space Systems

1 Atch
Problem Paper

IF ENCLOSURES ARE WITHDRAWN (OR NOT ATTACHED) THE CLASSIFICATION [illegible] WILL BE CANCELLED [illegible]

Gen. S —
note inside

[redacted]

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PROBLEM PAPER

I. SENTRY R&D:

A. Problem - ARPA instructions, TWX 24 June, directed the deferment of the recoverable capsule portion of the SENTRY System because of funds limitations due to the demands of other ARPA programs. It was also advised that the SENTRY program be planned for a total of 135 million FY 60 ARPA dollars instead of the 160 million total established by ARPA in January.

B. Factors Bearing on the Problem -

1. Hq USAF (General Walsh, ACS/I) forwarded specific intelligence requirements for SENTRY to Mr. Johnson, ARPA, in November and December 1958. These were subsequently forwarded to AFBMD by ARPA as the official requirements of the system.

2. The December/January ARPA reappraisal and reorientation of the SENTRY program was justified on the basis of these stated intelligence requirements.

3. The major program change was the addition of the recovery capsule to meet the mapping and the high resolution photographic requirement (5' ground object size) in the 1961-1962 time period. This program provides the only foreseeable means of fulfilling the high resolution photo capability requirement in that time period.

4. ARPA validated the technical approach and the requirement by approving the January 1959 Development Plan. They were subsequently briefed on the technical aspects of the new work. Their recently stated position was to defer development on this portion because of lack of funds.

5. During briefings to Hq USAF and ARPA in February, ARPA established the FY 60 funding level of 160 million for SENTRY. This was the fund level against which all the subsequent AF and AFBMD planning, programming and development action for FY 59 and FY 60 was based. The recent ARPA decision to reduce FY 60 funds by 25 million will cause major disturbances in the program. The possible deletion or at least deferment of work under accelerated development for the past 5 months will cause excessive costs to accrue to the SENTRY development program because of fluctuating decisions.

C. Recommended Corrective Action -

1. Establish Air Force funding support of the recoverable capsule portion of SENTRY. (25 million for FY 60)

Talk to Yale.

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Charyk + Wilson —

2. Have ARPA present firm funding plans for SENTRY since the validity of Air Force program and development planning action is directly dependent upon a sensible long range stable plan.

II. SENTRY OPERATIONAL ANNEX:

A. Problem - Interim Intelligence Processing

B. Factors Bearing on Problem:

1. AFCIN intent by November 1958 letter and 2 June 1959 letter from General Boushey is verbally interpreted for us by General Walsh and General Boushey as requiring an interim facility at Offutt for processing intelligence data during R&D flights. This requires the following:

[illegible] letter

a. 5.6 million additional funds FY 60.

b. Rehabilitation of 10,000 square feet of Martin Bomber plant at Offutt.

c. Installation and check-out of interim hardware in Martin Plant at Offutt.

d. Permanent crew of T/RW personnel at interim Offutt facility.

e. OJT of SAC personnel at Offutt during Installation of hardware in interim facility.

f. Accomplishment of above by April 1960.

Ritland

Not in Dev. Plan.
Funds not available
Cannot proceed without funds
Cannot deliver — then?
Project accompanied with —
Ritland + Kane —

C. Recommendations: (The following has been proposed to General Walsh but to no avail.)

1. Lease space at T/RW occupied by R&D simulation hardware. This establishes it as Air Force facility.

2. Provide a SAC detachment of 544th Recon. Technical Group at Denver T/RW.

3. Reconstitute film ferret tapes and critical data at Denver using R&D hardware and SAC personnel.

4. Provide secure area for SAC detachment at Denver in leased facility.

5. SAC detachment forward reconstituted useable data to Offutt for further processing and distribution as intelligence information.

Referred [illegible] to Baldwin —

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understand demand — but can't comply — $ — [illegible] — will not deliver — [illegible]

Kimling

1- Ritland

Prepare TWX to Doc Stetter copy to Bal[illegible]

2- Prepare copy to SAC KA Miss Div

TWX in Stetter's hand

D. **Problem:** Launch and checkout facilities for operational support.

1. **Factors bearing on problem:**

a. AFBMD/SAC has jointly recommended to USAF that the VAFB ATLAS complex 65-1 be turned over to SENTRY to support the operational program.

b. Hq USAF has denied us use of 65-1.

c. The above results in a need for:

(1) Additional FY 60 funds ([illegible] million facilities - 8 million GSE)

(2) Additional FY 61 funds [redacted]

2. **Recommended Corrective Actio**[redacted]

a. Reconsider decision to deny 65-1 for SENTRY use since it is:

(1) Built to accommodate the Series D missile.

(2) One of a kind site.

(3) Vertical readiness.

(4) Unhardened.

Change Ho meeting M 5 Aug

III. **MIDAS:**

Approved

A. **Problem** - Mercury/MIDAS conflict on Pad 14. AFMTC

B. **FACTS bearing on problem:**

3- [illegible]

Get a proposal in near level with NASA. Send in TWX with [illegible]

1. Prior to February 1959, MIDAS had sole use of Pad 14 at AFMTC from mid August 1959 thru May 1960, for Phase I.

2. With the start of the Mercury program, the first two Mercury launches were scheduled prior to the first MIDAS launch - subsequent schedule proposals outlined two Mercury - two MIDAS, with the last MIDAS launch occuring in September 1960.

3. Combined effects of the ATLAS D problems and a power supply for the Mercury has delayed the first two Mercury shots by six weeks. This delays the final installation and checkout of the MIDAS equipment until 15 October 1959.

4. 54 uninterrupted days are required for final installation and checkout and readiness for launch. Thus the first MIDAS launch has been delayed to 6 January 1960 - the second launch 24 February 1960.

5. Adherance to the 2 MIS - 2 MIDAS - 2 MIS - 2 MIDAS will delay the MIDAS Phase I completion to September 1960.

C. Recommended Corrective Action:

To conserve project funds, make effective use of MIDAS crews and equipment and effectively use Pad time, it is desirable to launch all four Phase I MIDAS vehicles consecutively. It is proposed that the 3rd and 4th launches be scheduled on 13 April and 1 June. This will permit the Mercury program exclusive use of Pad 14 after June 1960.

IV. MIDAS - Phase II:

A. Problem - Phase II approval and funding required immediately.

B. Facts bearing on the problem:

1. ARPA Order 38-59, Amendment No. 3, authorized the AFBMD to procure those long lead time items necessary to protect the Phase II schedule and provided funds.

2. AFBMD initiated procurement on boosters, Agena vehicles, and equipment as directed on an incrementally funded basis.

3. On 24 June, ARPA TWX 961412 stated the ARPA FY-60 budget for MIDAS was $18 million, and assumed availability of $28.9 million Air Force funds. The TWX limited the entire FY 60 MIDAS effort to $46.9 million. Funds estimated for Phase I are $18 million; funding for Phase I and II is $60.1 million.

4. Procurement of Phase II long lead items must be terminated unless further guidance and/or Phase II funding and approval is received.

C. Recommended Corrective Action:

TWX's on 5 June and 30 June brought these facts to the attention of ARDC AF(AFDAT) and ARPA. These facts are contained in the briefing now under way. All efforts at all levels should be made to secure funding and approval.

Out of Phase II money!* Skifter is not designing

V. MIDAS Phase III:

A. Problem - In order to fulfill the Air Force requirement stated in GCR 80-3 and 80-3A, and the availability of MIDAS in CY 1961, immediate approval and funding of Phase III is required.

Kirling

Ozzie

1. He has III all instructions — As the usual [illegible] [illegible] of funds. He is only 1ME required

B. **Facts bearing on the problem:**

1. Procurement of GSE for the ATLAS/MIDAS GSE for the launches at Arguello must be initiated by mid September if the launch complex is available for the first launch of the operational net in July 1961.

2. The launcher construction must follow the following time schedule:

(a) Complete siting with Navy - Immediately

(b) Start construction - October 1959

(c) BCD - December 1960

(d) Installation and checkout completed - June 1961

3. The read out and relay station in the U.K. must follow a similar construction, installation and check out schedule to be in operation by October 1961. Read out and relay station in Alaska has been sited and is under construction. Equipment is budgeted in the FY 60 program.

4. BMD TWX to USAF of 2 June outlined these problems and requested immediate approval or appropriate change in GOR SC-3A.

C. **Recommended Corrective Action:**

These facts have been brought to the attention of USAF by TWX and are contained in the series of briefings now underway. All efforts at all levels should be made to secure immediate approval and funding.

GENERAL SCHRIEVER —

This is essentially the WHOLE story. The ARPA has been presented our Dev. Plans and indicate their decisions in a "week to 10 days". ARPA seemed sympathetic to the need for recovery but indicated they had to cut their budget. We asked why they took most of their cut out of such hi-priority subjects as SENTRY — NO ANSWER.

[redacted]